

**REMARKS**

Applicants would like to thank Examiners Fink and Buttner for the interview conducted on October 1, 2009. During the interview, amendments to claims 1 and 7 as described below were discussed.

Claims 1 and 6-12 have been amended to replace formulae (I) and (II) with formulae (IV), (VI), (VII) and (IX). Support for these amendments is found throughout the specification (*see, for example, page 2, paragraphs [0014]-[0020] and the originally filed claims*). Furthermore, the formulae show that each Y group is attached to each V group. Claims 2-5 have been canceled without prejudice. No new matter has been added by virtue of these amendments and entry is respectfully requested. Claims 1, 6-15 and 20 are pending and at issue.

Applicants, hereby, reserve the right to pursue the amended or canceled subject matter in one or more continuation or divisional applications.

***Claim Rejections - 35 USC § 112***

Claims 1-15 and 20 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner contends that it is unclear whether each Y group on claim 1 must be directly linked to group X or whether the Y groups may be attached in series (e.g., -X-Y-Y-).

Applicants respectfully traverse this rejection. Formulae (I) and (II) in claims 1 and 6-12 have been replaced with formulae (IV), (VI), (VII) and (IX). These formulae clearly set forth that each Y group is directly attached to each V group.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of this rejection.

***Claim Rejections - 35 USC § 102***

Claims 1, 7, 13-15 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Wang (US 6,639,032).

Applicants respectfully traverse this rejection. Claim 1 has been amended to include the limitations of allowable claim 5. Accordingly, claim 1 and the claims which depend from it (claims 13-15) are not anticipated by Wang.

Claims 7 to 12 have been amended to recite a process for preparing a multi-branched polymer in which Y1 in formula (IV) is a functional group having only one or two halogens. In contrast, the monomer discussed by Wang includes a group having three halogens, i.e., -O-CO-Cl<sub>3</sub>. Therefore, the production process of claim 7 differs from Wang. As such, Wang fails to teach each and every claim limitation and thus fails to anticipate these claims.

For the foregoing reasons, Wang does not anticipate the pending claims, and Applicants respectfully request withdrawal of this rejection.

Claims 1-3, 7-9, 13, and 14 were rejected under 35 U.S.C. § 102 as being anticipated by Oshawa *et al.* (US 6,551,758).

Applicants respectfully traverse this rejection. As discussed above, claim 1 has been amended to incorporate the limitations of allowable claim 5. Accordingly, claim 1 and the claims which depend from it (claims 13 and 14) are not anticipated by Oshawa.

Oshawa does not disclose or suggest the process recited in independent claim 7. Oshawa teaches:

[T]he dendritic or hyperbranched polymer of phenol derivative is synthesized by effecting living anion polymerization of a polymerizable monomer such as 4-tert-butoxystyrene and reacting a branching monomer such as chloromethylstyrene as appropriate during the living anion polymerization.

More particularly, living anion polymerization is started using a polymerizable monomer such as 4-tert-butoxystyrene. After a predetermined amount has been polymerized, a branching monomer such as chloromethylstyrene is introduced and reacted with the intermediate. Then the polymerizable monomer such as 4-tert-butoxystyrene and/or the branching monomer such as chloromethylstyrene is added again for polymerization.

(col. 14, ln. 47-67).

In contrast, in the process recited in claim 7, the monomer represented by formula (IV) is polymerized by a living radical polymerization method using a metal catalyst, and the reactions at the polymerization-initiation site and the polymerizable unsaturated bonds are performed simultaneously (*See Example 1 in the specification*).

For the foregoing reasons, Wang does not anticipate the pending claims, and Applicants respectfully request withdrawal of this rejection.

Claims 1, 4, 6, 10 and 12 were rejected under 35 U.S.C. § 102(a) as being anticipated by Zhang *et al.* (A Covalent-Chemistry Approach to Giant Macromolecules and Their Wetting Behavior on Solid Substrates. *Agnew. Chem. Int. Ed.* 2004, 43, pp. 5185-5188).

Applicants respectfully traverse this rejection. As discussed above, claim 1 has been amended to incorporate the limitations of allowable claim 5. Accordingly, claim 1 and claim 6, which depends from claim 1, are not anticipated by Oshawa.

Claims 10 and 12 depend from claim 7. Zhang does not disclose or suggest the process recited in claim 7, which entails a living radical polymerization method using a metal catalyst, and the reactions at the polymerization-initiation site and the polymerizable unsaturated bonds are performed simultaneously.

For the foregoing reasons, Zhang does not anticipate the pending claims, and Applicants respectfully request withdrawal of this rejection.

## **CONCLUSION**

In view of the foregoing, reconsideration and withdrawal of all rejections and allowance of the application is respectfully solicited.

If there are any remaining issues or the Examiner believes that a telephone conversation with the undersigned would be helpful in expediting prosecution of this application, the Examiner is invited to call the undersigned at telephone number shown below.

Dated: November 4, 2009

Respectfully submitted,

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